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# NASA Procedural Requirements

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## Subject: Facility Project Requirements

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## Appendix A. Definitions

**A-1 Activation** -- the portion of the total facility acquisition process that normally follows construction. It includes the installation of ground support equipment, the integration and checkout of combined facility and equipment systems, installation of noncollateral equipment, and demonstration and acceptance of an operable facility.

**A-2 Addition, Expansion, Extension** -- a physical increase to a real property facility that adds to the overall dimension of the facility.

**A-3 Administrator** -- the top executive of NASA.

**A-4 Agency** -- any executive department, commission, authority, administration, board, or other independent establishment in the executive branch of the Federal Government, including any corporation wholly or partly owned by the United States and which is an instrumentality of the United States. The term as used herein does not include the municipal government of the District of Columbia.

**A-5 Apportionment** -- act of distributing according to a plan or set apart for a special purpose. OMB is responsible for apportioning NASA's appropriated funds.

**A-6 Appropriation** -- statutory authority that allows Federal agencies to incur obligations and make payments out of the U.S. Treasury for specific purposes. An appropriation usually follows enactment of authorizing legislation. The following is a list of typical appropriation terms:

- a. **Annual Appropriation** -- an appropriation that is available for incurring obligations only during one fiscal year specified in the annual Appropriation Act.
- b. **Continuing Appropriation** -- an authority to incur obligations until funds are exhausted or to achieve a specific objective.
- c. **Current Appropriation** -- an appropriation that is available for obligation during the current fiscal year.
- d. **Lump Sum Appropriation** -- an appropriation in a specified amount made for a complete program without prescribing limitation of outlays within the stated purpose and amount.
- e. **Multiple-Year Appropriation** -- an appropriation that is available for incurring obligations for a definite period in excess of one fiscal year (e.g., CoF).
- f. **No-Year Appropriation** -- an appropriation that is available for incurring obligations for an indefinite period of time.
- g. **One-Year Appropriation** -- an appropriation available for obligations only during one specified year.

**A-7 At-Risk Project** -- a project for which one of the following applies:

- a. Final design has not started by the end of May preceding the fiscal year in which the project is proposed for Congressional authorization, or not completed by February of the fiscal year in which the project was authorized and appropriated.

- b. The project scope as presented to Congress has significantly changed.
- c. Construction award has not been made or is not scheduled to occur by June of the fiscal year in which the project was authorized and appropriated.
- d. Modification projects that are not awarded within six months after the date of release of the construction funds. (See "Modification.")

Funding allocation may be lost when a project is at risk. The resources allocated to an at-risk project can then be made available for satisfying shortages in Congressional appropriations or be used to fund projects at locations where resources will be obligated in a timely manner.

**A-8 Authorization** -- is a legislative act authorizing money to be spent for Government programs that specify a maximum spending level without provision for actual funds.

**A-9 Beneficial Occupancy Date** -- the date a contractor releases and NASA accepts occupancy of a facility or portion of a facility.

**A-10 Bid Opening Date** -- the date when all sealed bids must have been received by the Government and when all bids are opened and recorded for an Invitation for Bid.

**A-11 Brief Project Document (NASA Form 1509)** -- See Facility Project-Brief Project Document.

**A-12 Budget** -- a formal estimate of future revenues, obligations to be incurred, and outlays to be made during a defined period and, when determined to be appropriate, based on accrued expenditures and costs to be incurred.

**A-13 Budget Cycle** -- the period that elapses from the initiation of the budget process to the completion of the budget process for a particular fiscal year.

**A-14 Budget Estimate** -- a fund requirement for any element included in a budget. Collectively, all estimated fund requirements for a particular operating agency or component or consolidation thereof.

**A-15 Budget Process** -- the process encompassing all phases of funding formulation through execution.

**A-16 Budget Year** -- the fiscal year of execution, covering the period from October 1 through September 30 (see "Fiscal Year").

**A-17 Category A** -- used for minor projects to indicate that the requirement for the project was included in a Congressional budget submission. For substitution projects, see "Modification."

**A-18 Centers** -- primary NASA field installations, each led by a Center Director. The following are Centers:

- a. Ames Research Center (ARC).
- b. Dryden Flight Research Center (DFRC).
- c. Glenn Research Center (GRC) at Lewis Field.
- d. Goddard Space Flight Center (GSFC).
- e. Jet Propulsion Laboratory (JPL).
- f. Johnson Space Center (JSC).
- g. Kennedy Space Center (KSC).
- h. Langley Research Center (LaRC).
- i. Marshall Space Flight Center (MSFC).
- j. Stennis Space Center (SSC).

**A-19 Center Director** -- the top executive at a NASA Center.

**A-20 Change in Scope** -- a change in objectives, work plans, or schedules that results in a material difference from a prior approval from a higher authority.

**A-21 Change Order** -- a written direction from the CO to the contractor modifying the contract as awarded.

**A-22 Chief Financial Officer** -- the official in charge of all fiscal and financial plans and operations.

**A-23 Collateral Equipment (also see "Noncollateral Equipment")** -- building support equipment and large, substantially affixed equipment/property. It is normally acquired and installed as a part of a facility project and includes the following:

- a. Building support equipment that normally is required to make a facility useful and operable. It is built in to the facility, and its removal would impair the usefulness, safety, or environment within the facility (e.g., elevators, transformers, compressors, heaters, ventilators, and air-conditioners). It also includes systems and subsystems, such as electrical, plumbing, pneumatic, fire protection, fire suppression, control systems, and monitoring systems.
- b. Large, substantially affixed equipment or property of any type other than building support equipment that is built in such that the installation costs including building envelope modifications, special foundations, and utility service exceed \$300,000.

**A-24 Completion Date** -- when the Government formally accepts an item of work from a contractor. The date on which the Government accepts all contract deliverables is the contract completion date.

**A-25 Component Facilities** -- NASA installations geographically separated from the NASA Centers to which they are assigned (see "Centers"). The Component Facilities annotated with their assigned NASA Centers are as follows:

- a. **Deep Space Network** -- Goldstone, CA; Canberra, Australia; Madrid, Spain; (JPL).
- b. Ground Network at KSC (GSFC).
- c. Independent Verification and Validation Facility (IV&V) (GSFC).
- d. Michoud Assembly Facility (MAF) (MSFC).
- e. NASA Management Office (NMO)/JPL (HQ/Science Mission Directorate).
- f. Palmdale (JSC).
- g. Plum Brook Station (PBS) (GRC).
- h. Santa Susana Field Laboratory (MSFC).
- i. Space Network (White Sands, NM) (GSFC).
- j. Wallops Flight Facility (Wallops Island, VA) (GSFC).
- k. White Sands Test Facility (WSTF) (JSC).

**A-26 Computerized Maintenance Management System (CMMS)** -- computer software that is used to monitor, plan, and schedule facility and equipment maintenance functions. They provide historical data, report writing capabilities, job analysis, and more. The data describes equipment, parts, jobs, crafts, costs, step-by-step instructions, and other information involved in the maintenance effort. This information may be stored, viewed, analyzed, reproduced, and updated with just a few keystrokes. The maintenance-related functions typically include the following:

- a. Facility/equipment inventory.
- b. Facility/equipment history.
- c. Work input control.
- d. Job estimating.
- e. Work scheduling and tracking.
- f. Preventive and predictive maintenance.
- g. Facility inspection and assessment.
- h. Material management.
- i. Utilities management.

**A-27 Constructability** -- a review of the design documents from a practicality, cost effectiveness, and efficiency perspective. The review includes verifying the integration of the drawings with the various professional disciplines and clarity of the design. It also includes review for maintainability and operability.

**A-28 Construction** -- the erection or modification of real property required to support a new capability, including additions, sidewalks, parking lots, driveways, and upgrades. This includes alterations to existing facilities that change the original purpose of the facility (e.g., remodeling a warehouse, or portion thereof, into office space).

**A-29 Construction Contractor** -- a business entity (i.e., person, corporation, partnership, or joint venture) that has satisfied the CO that they are qualified to perform the work as described in the construction contract documents.

**A-30 Construction of Facilities** -- a NASA corporate program that funds planning for future facility needs, design of facilities projects, revitalization projects (repair, rehabilitation, and modification of existing facilities), construction of

new facilities, and acquisition of collateral equipment.

**A-31 Contingency (Construction)** -- an allowance included in a construction cost estimate to cover uncertainties during the construction phase of the project, such as changes in site conditions and construction interferences.

**A-32 Contingency (Design)** -- an allowance included in the engineering estimate to allow for added unanticipated costs due to design uncertainties and incomplete or changing user requirements.

**A-33 Contract** -- either an agreement or an order for the acquisition of supplies or services signed by a CO.

**A-34 Contract Award Date** -- the date the CO signs the contract.

**A-35 Contract Officer** -- any person who has the authority to acquire, administer, or terminate contracts. The term includes specifically authorized representatives of the CO acting within the limits of their authority as delegated by the CO.

**A-36 Contracting Officer Technical Representative** -- an authorized representative with technical understanding of the project and acting under the authority delegated by the CO.

**A-37 Contractor Safety and Health Plan** -- a comprehensive written document, specific to the scope of work, and applicable to all subcontractors, explaining how the construction contractor will affirmatively and proactively assess work for hazards; comply with applicable Federal, state and local and NASA health and safety requirements; and provides controls for the specific hazards identified.

**A-38 Current Cost Estimate** -- an estimate that is the latest and best professional cost estimate for a given project at any given time during planning, design, or construction. It is the estimated cost for labor, materials, and services to complete a planned facility project. It includes an estimate for land acquisition, site work, construction, and the purchase and installation of collateral equipment. It must include a reasonable estimate for contingencies. If a construction agent will manage the project for NASA, this estimate includes the agent's contract cost.

**A-39 Current Year** -- the present fiscal year (October 1 through September 30).

**A-40 Design** -- the process of developing, planning, and communicating project requirements into workable drawings and specifications to accomplish the project within the established scope and objectives. This encompasses both the preliminary design and final design for facility projects. It also includes providing cost estimates for the planned project at each design review stage.

**A-41 Design Review** -- a formal pause in the design contract where users and technical experts verify that the design adequately addresses the project scope, objectives, and technical requirements (typically at the 30-percent, 60-percent, and 90-percent design milestones).

**A-42 Discrete Facility Project** -- a CoF project with an estimated cost of \$5 million or more.

**A-43 Drawings** -- graphic representations on either electronic media or paper that convey the intent of the project requirements.

**A-44 Emergency Repair** -- restoration of an existing facility or component(s) after a major breakdown or accident, as authorized by the NASA Space Act of 1958, as amended. HQ FERPD defines "emergency" as so urgent that it cannot wait to go through the normal budget cycle or process. For all emergency repairs, the replacement of components or materials will be of the size or character currently required to meet demands or needs.

**A-45 Environmental Analysis** -- the process of making the initial evaluation of the environmental considerations of a proposed action including alternative proposals.

**A-46 Environmental Assessment (EA)** --one of three possible documents required for compliance with the National Environmental Policy Act (NEPA) process. The three documents in order of increasing effort and cost are a Categorical Exclusion (CATEX), an EA, and an Environmental Impact Statement (EIS). The EA is the correct path when the environmental impact is low, but does not qualify as a CATEX. For details, contact the Center Environmental Management Office.

**A-47 Environmental Impact Statement (EIS)** -- a document developed through the NEPA process when the impact to the environment is significant (e.g., a change in mission to a Center or the Agency with significant environmental ramifications--air/water quality, noise, soil contamination, or an increased risk [perceived or real] to the public). For details, contact the Center Environmental Management Office.

**A-48 Equipment/Property** -- Equipment within NASA is classified as either "personal property (other terms: noncollateral or accountable)" or "real property installed equipment (collateral)." Personal property is equipment whose maintenance, repair, and replacement are the responsibility of the NASA program owning it. All personal property equipment has attached property tags in the form of NASA bar codes. Real property installed equipment is equipment that is capitalized on the Real Property Inventory by the Center Real Property Accountability Officer.

**A-49 Facilities Maintenance** -- the recurring day-to-day work required to preserve facilities (buildings, structures,

grounds, utility systems, and collateral equipment) in such condition that they can be used for their designated purpose over an intended service life. It includes the cost of labor, materials, and parts.

**A-50 Facility** -- land, buildings, structures, and other real property improvements including utility systems and collateral equipment. The term does not include operating materials, supplies, special tooling, special test equipment, or noncapitalized equipment (see Financial Management Manual (<http://www.hq.nasa.gov/fmm/9200/9250.pdf>) for criteria for capitalized equipment).

**A-51 Facility Acquisitions** -- the acquisition of an interest in land, buildings, other structures and facilities, or leasehold improvements. The normal facility acquisition methods include purchase, transfer, lease, easement, use permit, and rights of way.

**A-52 Facility Activation** -- the process of preparing or outfitting a facility for use when a Construction of Facilities project is substantially complete. This includes, but is not limited to, such activities as installation of noncollateral equipment, connection of noncollateral equipment to its interfaces, checkout of systems, and validation activities in support of operational readiness testing.

**A-53 Facility Need Date** -- the date when a facility is required for a specific purpose, such as to receive program hardware for test and checkout. First operational use of the facility completes this milestone.

**A-54 Facility Outfitting** -- see "Outfitting."

**A-55 Facility Project** -- the consolidation of facility work items, including related collateral equipment, required to provide a complete and usable facility.

**A-56 Facility Project-Brief Project Document (NASA Form 1509)** -- a multipurpose document that must be used for all facility projects estimated to cost \$100,000 or more, regardless of location or source of funding.

**A-57 Facility Project Cost Estimate (NASA Form 1510)** -- the form in which the approved facility project cost estimate (AFPCE) is further detailed beyond the summary in [NASA Form 1509](#).

**A-58 Facility Project Manager** -- the individual responsible for organizing, managing, and directing the activities to accomplish facility work within schedule and cost. Different individuals may fill this role at different phases of a project.

**A-59 Failure Modes and Effects Analysis (FMEA)** -- a process used to determine which parts fail, why they usually fail, and what effect their failure has on the total system. This is an element within Reliability Centered Maintenance (RCM) (see Reliability Centered Maintenance Guide for Facilities and Collateral Equipment at [http://www.hq.nasa.gov/office/codejx/Assets/Docs/RCMGuide Mar2000.pdf](http://www.hq.nasa.gov/office/codejx/Assets/Docs/RCMGuide%20Mar2000.pdf)).

**A-60 Federal Agency** -- a specific organization that the executive, legislative, or judicial branches of the U.S. Government has established.

**A-61 Fiscal Year** -- the 12-month period from October 1 through September 30 as established each year by the U.S. Government.

**A-62 Five-Year Plan** -- a list of projects by fiscal year that meet functional requirements needed to achieve a Center's assigned mission.

**A-63 Flash Bid Report (NASA Form 1579)** -- a form summarizing the results of a project bidding process.

**A-64 Fragmentation** -- the planning, development, or execution of two or more interdependent projects to circumvent the appropriate budget approval process.

**A-65 Full Disclosure Concept** -- for all stages of planning, approval, and management of a facility project, the Full Disclosure Concept requires that project documentation outline all reasonably identifiable elements of cost necessary to achieve a fully operable facility. The estimated cost of the facility project must include every associated element of real property including collateral equipment. It must also identify all other equipment required to the extent practicable (see Appendix D, Facility and Other Related Costs, for a listing of items and types to include).

**A-66 Fund** -- a sum of money authorized by law and set aside for use for specified purposes.

**A-67 Funding** -- the issuance of funds to incur commitments and obligations and make payments within appropriations made by Congress.

**A-68 Government-Furnished Property** -- property owned by the Government and provided to a contractor for use in performance of a contract.

**A-69 Ground Support Equipment** -- nonflight equipment, implements, and devices required for handling, servicing, inspecting, testing, maintaining, aligning, adjusting, checking, repairing, and overhauling an operational end item or a subsystem or component thereof. This may include equipment required to support another item of ground support equipment as defined herein.



**A-70 Improvements** -- an addition to land, buildings, other structures, and attachments or annexations to land that is intended to remain so attached or annexed, such as sidewalks, drives, tunnels, utilities, and installed collateral equipment.

**A-71 Indirect Cost** -- a cost of labor and material not related to specific research and development projects.

**A-72 Invitation for Bids** -- the solicitation documents used to acquire a project requirement under sealed bidding rules in the FAR and NASA FAR Supplement.

**A-73 Land Acquisition** -- an acquisition of title to land including any interest therein, such as mineral and water rights, easements, rights of way, or interagency permits whether obtained by purchase or other means.

**A-74 Lease** -- an instrument conveying an interest in land, buildings, or other structures and facilities for a specified term and revocable as specified by the terms of the instrument, in consideration of payment of a rental fee.

**A-75 Life-Cycle Cost** -- an estimate of the economic impact over a selected design life of a project or project alternative. This estimate includes first cost, energy consumption, periodic replacement of equipment or materials, operations, and maintenance.

**A-76 Limitation** -- a statutory or administratively imposed restriction within an appropriation or other authorization act that establishes the maximum threshold for a specific purpose.

**A-77 Long-Lead Items** -- items that, because of their complexity of design, complicated manufacturing processes, or limited production, require an extraordinary length of time for delivery.

**A-78 Maintainability** -- the design, installation, and operational characteristics of an item used for ease of keeping it operational, e.g., designed access to a chiller's coils for easy cleaning.

**A-79 Maintenance** -- see "Facilities Maintenance."

**A-80 Major Facility Work** -- see "Discrete Facility Project."

**A-81 Major Renovation** -- a repair project on an existing facility that exceeds 50 percent of the replacement value for the space in question.

**A-82 Modification** -- a project that was not originally budgeted for a specific fiscal year.

**A-83 Negotiation** -- the method of making purchases and contracts without using sealed bidding procedures.

**A-84 New Capability** -- a facility project that is needed to support new programmatic or institutional requirements. This includes projects for the rehabilitation/modernization and repair of existing facilities when the facility supports new programmatic or institutional requirements.

**A-85 Nonappropriated Funds** -- funds not associated with an appropriation, such as funds received through international cooperation, gifts, donations, and NASA exchanges.

**A-86 Noncollateral Equipment** -- equipment other than collateral equipment that, when acquired and used in a facility or a test apparatus, can be severed and removed after erection or installation without substantial loss of value or damage to the premises where installed.

**A-87 Notice to Proceed** -- the date of direction from the CO to a contractor authorizing commencement of work.

**A-88 Obligation** -- the award of a contract or purchase order by a CO to satisfy a contractual agreement.

**A-89 Operational Readiness Review** -- the final NASA review of a facility immediately prior to placement into its intended operation.

**A-90 Operations and Maintenance Manuals** -- organized procedural information specifying methods of operating and maintaining building systems, collateral equipment, and support equipment. O&M personnel use the manuals in the performance of day to day tasks. Preferably, the manuals are in an electronic format.

**A-91 Outfitting** -- the process of equipping a facility for its intended purpose during activation.

**A-92 Option** -- a unilateral right in a contract by which, for a specified time, the Government may elect to purchase additional supplies or services called for by the contract or may elect to extend the term of the contract.

**A-93 Partnering** -- a Government contractor relationship to foster the achievement of mutually beneficial goals (see NFS, 48 CFR, Chapter 18, Part 1836 Subpart 1836.70 (<http://www.hq.nasa.gov/office/procurement/regs/1836.doc>)).

**A-94 Past-Year** -- the fiscal year immediately prior to the current fiscal year.

**A-95 Payback** -- the amortization period defined in years calculated by dividing the total budget estimate by the total expected discounted annual savings.

**A-96 Predictive Testing & Inspection (PT&I)** -- the use of advanced technology to assess condition of equipment, utilities, and systems. When using RCM, the PT&I data obtained allows for planning and scheduling preventive maintenance or repairs prior to failure.

**A-97 Procurement** -- the purchase, rent, lease, or other acquisition of supplies, services, or facilities. It includes all functions that pertain to the acquisition of supplies and services including description, but not determination of requirements, selection, and solicitation of sources; preparation and award of contract; and all phases of contract administration.

**A-98 Program Offices** -- Headquarters organizational elements, such as the following:

- a. Space Operations Mission Directorate (<http://www.hq.nasa.gov/osf/>).
- b. Aeronautics Research Mission Directorate (<http://www.aerospace.nasa.gov/>).
- c. Exploration Systems Mission Directorate (<http://exploration.nasa.gov/>).
- d. Science Mission Directorate (<http://science.hq.nasa.gov/>).

**A-99 Progress Payment** -- a partial expenditure of funds made to a contractor as work progresses.

**A-100 Project** -- a specific investment having defined goals, objectives, requirements, life-cycle costs, a beginning, and an end. A project yields new or revised products or services that directly address NASA's strategic needs.

**A-101 Project Definition Rating Index (PDRI)** -- a Construction Industry Institute best practice tool used in front-end planning to determine how well a project is defined. This tool is used throughout project development, but is scored at the 30% design stage. The scoring system is based upon a 1000-point scale, and a low score (i.e. 200 or less) reflects a well-defined project.

**A-102 Project Scope** -- the description of a facility project limits, objectives, and planned result. The scope of a facility project typically includes a description of its location, purpose, capabilities, capacity, physical dimensions, configuration, and utilities affected.

**A-103 Project Team** -- the team responsible for organizing, managing, and directing facility project work. It includes all project stakeholders, such as representatives from the using organization, safety, engineering, fire protection, security, environmental, acquisition, operations and maintenance, and technicians.

**A-104 Purchase Request/Purchase Order** -- a document or electronic file used to convey funds to the CO. It also describes the supplies or services required and a Government cost estimate for those supplies or services.

**A-105 Real Property** -- land, buildings, structures, utility systems, improvements, and appurtenances permanently annexed to land. The term real property also includes installed collateral equipment.

**A-106 Related Costs** -- estimated cost elements of project work that are not included in the facility project cost estimate (see Appendix D for more detailed information)

**A-107 Reliability Centered Building and Equipment Acceptance Guide** -- a technical reference (<http://www.hq.nasa.gov/office/codej/codejx/Assets/Docs/RCB&EGuideJUL04.pdf>) for design engineers, project and program managers, construction managers and inspectors, quality control personnel, and NASA quality assurance staff to use prior to and during the equipment startup/checkout phase of new construction, repair, or rehabilitation projects. It focuses on the use of Predictive Testing and Inspection (PT&I) technologies by the contractor to detect latent manufacturing and installation defects as a normal part of the contractor's quality control program.

**A-108 Reliability Centered Maintenance (RCM)** -- a process used to determine the most effective approach to maintenance. It involves identifying actions that, when taken, will reduce the probability of failure and are the most cost effective. It seeks the optimal mix of Condition-Based Actions, other Time- or Cycle-Based actions, and a Run-to-Failure approach (see Reliability Centered Maintenance Guide for Facilities and Collateral Equipment at <http://www.hq.nasa.gov/office/codej/codejx/Assets/Docs/RCMGuideMar2000.pdf> and "Predictive Testing & Inspection").

**A-109 Renewal Rate (Yearly)** -- the Current Replacement Value (CRV) in dollars divided by the revitalization investment expressed in dollars per year.

**A-110 Renovate** -- see "Repair."

**A-111 Repair** --work required to restore a facility or component to its originally intended condition, capacity, efficiency, or capability.

**A-112 Replace** -- see "Repair."

**A-113 Resources** -- actual assets of a governmental unit, such as funds, human resources, and materials.

**A-114 Resources Authority Warrant** -- a document granting authority to initiate, commit, obligate, and outlay funds

for approved projects and activities.

**A-115 Revitalization** -- substantial renewal and upgrade work on the physical plant to meet current and future needs, thereby extending its useful life; e.g., a facility project that extends the useful service life beyond the original design life.

**A-116 Salvage** -- property that has some value in excess of its basic material content, but is in such condition that it has no reasonable prospect of use for any purpose as a unit, and its repair or rehabilitation for use as a unit is clearly impracticable.

**A-117 Site Activation Need Date** -- the date equipment/Ground Support Equipment is required to support installation and validation. Uncrating, inspecting, and handling time must be allowed for in establishing this date.

**A-118 Spare** -- an item peculiar to a system or end item held in reserve or backup.

**A-119 Specifications Kept Intact** -- the NASA standard construction specification system.

**A-120 Statutory Limitation** -- see "Limitation."

**A-121 Supervision, Inspection, and Engineering Services (SIES)** -- funding allowance used to provide the necessary controls and management during construction, and such deliverables as as built drawings and O&M manuals.

**A-122 Sustainability** -- An overarching concept incorporating appropriate sustainable design practices, maintainable design elements, building commissioning processes, safety, health and security features into facility planning, design, construction, activation, operation and maintenance, and decommissioning to enhance and balance facility life-cycle cost, environmental impact, and occupant health, safety, security, and productivity. Done properly, sustainability will optimize the facility acquisition process to ensure the "best fit" of the built environment to the natural environment. It requires a practical and balanced approach to responsible stewardship of natural, human, and financial resources.

**A-123 Sustainment** -- a parametric estimated cost to keep facilities in an acceptable condition. This is the lowest recommended funding level for facility maintenance.

**A-124 Validation** -- verification that the equipment/system meets the operational needs of the O&M user. It is part of the turnover process from the design agency to the O&M agency.

**A-125 Value Engineering** -- the systematic application of recognized techniques to determine the lowest practical overall cost of a facility consistent with the requirements of performance, reliability, and maintainability.

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